

## **ABSTRACT**

### **Employment of gas chromatography in the field of drug analysis IV.**

Diploma thesis

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This diploma thesis deals with the validation of analytical method for impurities determination in butane-1,3-diol by gas chromatography. Determination of ideal parameters for separation- temperature on column, temperature gradient, velocity of carrier gas and split ratio, allows ideal separation of the peak butane-1,3-diol and its impurities.

For sample quantification was tested method of internal standard and method of normalization.

The method of normalization was then validated. Validation of method includes linearity, reproducibility, robustness, LOD and LOQ. The found method meets all parameters.

The sample stability was confirmed by series of measurements during 24 hours.